

AMENDMENTS TO THE SPECIFICATION

Please replace the title of the invention with the following amended title.

Angular Positioning Position Sensing System and Method Using Pulse Width Modulation

Please replace the paragraph beginning on page 5, line 15, with the following amended paragraph.

Turning to FIG. 2, a block diagram of one exemplary phase angle detection system including a two-magnet rotary sensor 240 coupled to a ~~modulator and PWM generator circuit~~ phase angle pulse modulation circuit 203 and a PWM to analog signal circuit 218 consistent with the invention is illustrated. The sensor 240 may include a permanent magnet 246 having a north and south pole that rotates about a center axis 247. The rotating magnet type sensor may include a first magnetic field sensor 244 located at 0 degrees relative to a direction line 249 from the center axis 247. The rotating magnet type sensor may also have a second magnetic field sensor 242 located at 90 degrees relative to the same direction line 249 from the ~~center axis 246~~ center axis 247.

Please replace the paragraph beginning on page 6, line 5 with the following amended paragraph.

The sine input signal and cosine input signal are then input to the ~~modulator and PWM generator circuit~~ phase angle pulse modulation circuit 203 via respective input paths 202 and 204 to an in phase multiplier 210 and a quadrature multiplier 212. A quadrature oscillator 209 may generate a first generated signal, $\sin \omega t$. This $\sin \omega t$ signal may also be provided to the in phase multiplier 210, via a separate first oscillator input path 213. Similarly, the quadrature oscillator 209 may also generate a second generated signal, $\cos \omega t$, that may be provided to the quadrature multiplier 212 via a second oscillator input path 215.